

## **REMARKS**

Claims 1-37 are pending in this application.

Claims 34-36 are allowed.

Claims 1-33 and 37 are rejected

An appeal brief was filed on July 16, 2007. In the appeal brief, '101 rejections of claims 1-33 and 37 were traversed.

The latest Office Action re-opens prosecution in response to the appeal brief. However, the claims 1-33 and 37 are once again rejected under 35 U.S.C. §101.

Section 6 of the latest Office Action states that the claims should be given their broadest reasonable interpretation to avoid ambiguities. However, the office action does not identify any ambiguities in the rejected claims.

Section 9 of the latest Office Action states that a claim reciting "every practical application" of an abstract idea is nonstatutory. The Office Action further states that claims 1-33 and 37 recite a method of training a neural network with input data, and concludes that claims 1-33 and 37 "would virtually cover any and all forms of methods of training a neural network with input data."

The undersigned respectfully disagrees with that conclusion. Claims 1, 19-21 and 37 all recite particular ways of training a neural network. Claim 1, for instance, recites "using neighborhoods of the errors to adjust the connection weights." Therefore, claim 1 does not cover **any and all** forms of methods of training a neural network with input data. Claims 19-21 and 37 do not either.

Is the neural network of claim 1 an abstract idea? That issue has been rendered moot by the amendment above to base claim 1. Amended claim 1

clearly recites a method of using a computer and a neural network that is computer-based. Any ambiguity about claim 1 has been removed.

The latest Office Action goes on at length about how claims 1-33 and 37 are not limited to a particular application (sections 9 and 10), how they do not recite a useful, concrete or tangible result (section 10 and 12), how they recite a purely mathematical model that manipulates an abstract idea (section 11), and how they do not reflect the scope and breadth of the applicant's invention. The latest Office Action appears to suggest that the '101 rejection can be overcome by amending the claims to recite "image upscaling."

The undersigned is puzzled by the latest Office Action. Certain claims already recite image upscaling and gamut mapping (claims 13-16, and 32-33) and image processing (claims 2, 9 and 29). These claims appear to satisfy sections 9-12 of the latest Office Action. Thus, the '101 rejection of these claims should be withdrawn. Yet claims 2, 9, 13-16, 29 and 32-33 remain rejected. Why?

Moreover, base claims 1, 20-21 and 37 appear to comply with sections 9-12 of the latest Office Action because they recite the rescaling of data. The application gives several examples of data rescaling. One example of data rescaling is image upscaling. Another example of data rescaling is the rescaling of one-dimensional time-series data (see paragraph 78 of the application). Because the base claims recite data rescaling, they recite a practical application, a useful, concrete and tangible result, and they reflect the scope and breadth of the applicant's invention. In view of sections 9-12, the '101 rejection of base claims 1, 20-21 and 37 should be withdrawn.

Claim 19 has been amended to recite image upscaling. In view of sections 9-12 of the latest Office Action, the '101 rejection of claim 19 should be withdrawn.

Withdrawal of the '101 rejection and allowance of claims 1-33 and 37 are respectfully requested. The examiner is encouraged to contact applicant's attorney Hugh Gortler to discuss any issues that might remain.